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## REVISED PRICE SPREADS FOR BEEF AND PORK

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## REVISED PRICE SPREADS FOR BEEF AND PORK

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In recent years, several industry groups and the National Commission on Food Marketing have questioned the accuracy of price spreads for beef and pork, as published in this situation report. Their main question was whether weekend specials were fully considered in the computation of average retail prices. Computations included some of the effect of specials, but did not fully allow for the extra volumes sold at special prices.

As a result of a complete review of all procedures <sup>1/</sup>, a considerable number of revisions have been made to more accurately compute price spreads for beef and pork. These include the effect of price specials, an adjustment for retail shrink, use of carlot wholesale prices, and changes in the computation of byproduct values. Some of these revisions tend to narrow the estimated spreads while others tend to widen them.

This article is in conjunction with publication of the revised series. The price spread series for both beef and pork have been revised back to 1949. The revised series, in their entirety, on a quarterly basis will be published in a bulletin in the near future.

### REVISED PRICE SPREADS

Changes from one period to another in price spreads for both beef and pork are very similar in both the old and revised data. Differences are mainly in the absolute levels (tables 14 and 15). The revisions reflecting these absolute levels provide a greater degree of confidence in the series. Due to the absolute changes and the revision of the historical data, the revised series is essentially a replacement for, rather than a change in, the old series.

### Beef

The revised 5-year average retail price for beef is 1.3 cents lower than the old estimate. The revised net farm value is 3.9 cents higher; the wholesale value remains almost the same. The total farm-retail spread is 5.2 cents lower--with decreases in both the farm-wholesale and wholesale-retail segments. The farmer's share of the retail price of beef is about 5 percentage points higher as a result of the decrease in the retail price and increase in the farm value. These differences are relatively large, especially the change in the farm value, farm-retail spread, and the farmer's share.

Most of the increase in the farm value is due to an allowance for retail shrink and a revised procedure for obtaining the farm price. Exclusion of retail shrink in the past resulted in an understatement in the quantity of live animal equivalent to 1 pound of beef sold at retail. The change in the revised procedure to the use of central market prices (minus marketing costs) for Choice steers allows for a more accurate estimate of the farm price. A decrease in the byproduct value also tended to increase the farm value.

Although the effect of specials was a major question originally, allowance for specials caused a relatively small decrease in the retail price and farm-retail spread. Most of the decrease in the farm-retail spread was caused by the increase in farm value.

### Pork

The revised procedures resulted in relatively small increases in the retail price and the net farm value of pork. A

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<sup>1/</sup> An article concerning this review was published in the November 1967 issue of the Marketing and Transportation Situation.

Table 14.--Choice Beef: Old and revised prices, values, and spreads, annual 1964-68, monthly October 1968-September 1969

Year and month	Retail price		Wholesale value		Gross farm value		Byproduct value		Net farm value	
	Old	Revised	Old	Revised	Old	Revised	Old	Revised	Old	Revised
	Cents per pound									
1964.....	77.7	76.5	53.8	53.3	46.6	50.3	4.2	4.1	42.4	46.2
1965.....	81.4	80.1	57.6	58.0	51.6	56.5	4.8	4.7	46.8	51.8
1966.....	84.3	82.4	58.9	58.5	55.5	57.6	5.9	5.3	49.6	52.3
1967.....	84.1	82.6	59.7	59.4	54.3	57.0	5.0	4.0	49.3	53.0
1968.....	87.2	86.6	63.0	63.1	57.5	60.5	5.1	3.8	52.4	56.7
5-year average.	82.9	81.6	58.6	58.5	53.1	56.4	5.0	4.4	48.1	52.0
Difference 1/..	-1.3		-0.1		+3.3		-0.6		+3.9	
1968										
October.....	88.3	87.7	62.6	62.7	56.8	60.6	5.2	4.0	51.6	56.6
November.....	88.5	88.1	62.4	63.9	56.8	61.8	5.1	4.0	51.7	57.8
December.....	88.1	88.5	64.2	65.6	58.7	63.0	5.0	3.9	53.7	59.1
1969										
January.....	90.1	89.6	64.9	65.8	59.7	62.8	5.1	3.9	54.6	58.9
February.....	90.0	89.7	64.6	64.8	60.3	62.7	5.1	4.0	55.2	58.8
March.....	89.9	91.0	65.5	67.6	61.3	65.7	5.2	4.2	56.1	61.5
April.....	92.7	93.5	68.2	69.9	63.3	68.5	5.6	4.7	57.7	63.8
May.....	94.8	98.1	72.5	76.3	67.6	74.7	5.9	4.8	61.7	70.0
June.....	100.0	102.1	77.7	77.6	73.8	76.7	6.1	4.9	67.7	71.8
July.....	101.7	102.5	77.1	73.0	72.4	70.7	6.0	5.0	66.4	65.8
August.....	100.1	101.2	72.7	69.5	67.5	68.1	5.9	5.2	61.6	63.0
September.....	99.6	99.2	68.3	66.7	65.1	64.8	6.6	5.2	58.5	59.6
	Farm-wholesale spread		Wholesale-retail spread		Farm-retail spread		Farmer's share of retail price			
	Old	Revised	Old	Revised	Old	Revised	Old	Revised	Old	Revised
	Cents per pound									
							Pct.		Pct.	
1964.....	11.4	7.1	23.9	23.2	35.3	30.3	55		60	
1965.....	10.8	6.2	23.8	22.1	34.6	28.3	57		65	
1966.....	9.3	6.2	25.4	23.9	34.7	30.1	59		63	
1967.....	10.4	6.4	24.4	23.2	34.8	29.6	59		64	
1968.....	10.6	6.4	24.2	23.5	34.8	29.9	60		65	
5-year average.	10.5	6.5	24.3	23.1	34.8	29.6	58		63	
Difference 1/..	-4.0		-1.2		-5.2		+5			
1968										
October.....	11.0	6.1	25.7	25.0	36.7	31.1	58		65	
November.....	10.7	6.1	26.1	24.2	36.8	30.3	58		66	
December.....	10.5	6.5	23.9	22.9	34.4	29.4	61		57	
1969										
January.....	10.3	6.9	25.2	23.8	35.5	30.7	61		66	
February.....	9.4	6.0	25.4	24.9	34.8	30.9	61		66	
March.....	9.4	6.1	24.4	23.4	33.8	29.5	62		68	
April.....	10.5	6.1	24.5	23.6	35.0	29.7	62		68	
May.....	10.8	6.3	22.3	21.8	33.1	28.1	65		71	
June.....	10.0	5.8	22.3	24.5	32.3	30.3	68		70	
July.....	10.7	7.2	24.6	29.5	35.3	36.7	65		64	
August.....	11.1	6.5	27.4	31.7	38.5	38.2	62		62	
September.....	9.8	7.1	31.3	32.5	41.1	39.6	59		60	

1/ The difference is the change from the old to the revised.

Table 15.--Pork: Old and revised prices, values, and spreads, annual 1964-68, monthly October 1968-September 1969

Year and month	Retail price		Wholesale value		Gross farm value		Byproduct value		Net farm value	
	Old	:Revised	Old	:Revised	Old	:Revised	Old	:Revised	Old	:Revised
	Cents per pound									
1964.....	56.3	55.9	40.0	42.2	30.7	29.3	4.0	2.5	26.7	26.8
1965.....	64.1	65.8	49.5	52.6	42.1	41.6	5.5	3.5	36.6	38.1
1966.....	73.4	74.0	54.8	57.9	47.6	45.9	6.4	3.7	41.2	42.2
1967.....	67.0	67.2	48.1	51.5	39.0	37.3	4.8	2.5	34.2	34.8
1968.....	67.0	67.4	48.4	51.7	38.3	36.7	4.3	2.2	34.0	34.5
5-year average	65.6	66.1	48.2	51.2	39.5	38.2	5.0	2.9	34.5	35.3
Difference 1/...	+0.5		+3.0		-1.3		-2.1		+0.8	
1968										
October.....	68.4	67.8	49.1	50.4	39.1	34.7	4.3	2.1	34.8	32.6
November.....	67.0	67.1	46.7	50.3	35.8	33.9	4.0	2.1	31.8	31.8
December.....	67.0	67.0	47.6	52.1	34.9	35.6	3.8	2.1	31.1	33.5
1969										
January.....	67.5	67.9	49.5	52.9	37.8	37.4	4.1	2.4	33.7	35.0
February.....	67.8	68.6	49.4	52.5	39.6	38.7	4.5	2.7	35.1	36.0
March.....	67.8	68.9	49.7	52.9	39.8	39.2	4.6	2.8	35.2	36.4
April.....	68.0	69.1	50.4	53.1	40.2	38.6	4.5	2.7	35.7	35.9
May.....	69.0	71.6	49.7	56.5	41.9	44.0	5.2	3.0	36.7	41.0
June.....	72.7	75.0	55.9	59.8	49.6	48.0	5.5	3.2	44.1	44.8
July.....	74.1	76.7	56.6	60.5	50.4	49.8	5.9	3.4	44.5	46.4
August.....	75.0	78.2	59.7	63.1	53.1	51.5	6.1	3.7	47.0	47.8
September.....	77.3	77.9	59.9	62.6	51.4	49.6	6.0	3.5	45.4	46.1
	Farm-wholesale spread		Wholesale-retail spread		Farm-retail spread		Farmer's share of retail price			
	Old	: Revised	Old	: Revised	Old	: Revised	Old	: Revised	Old	: Revised
	Cents per pound						Pct.		Pct.	
1964.....	13.3	15.4	16.3	13.7	29.6	29.1	47		48	
1965.....	12.9	14.5	14.6	13.2	27.5	27.7	57		58	
1966.....	13.6	15.7	18.6	16.1	32.2	31.8	56		57	
1967.....	13.9	16.7	18.9	15.7	32.8	32.4	51		52	
1968.....	14.4	17.2	18.6	15.7	33.0	32.9	51		51	
5-year average.	13.7	15.9	17.4	14.9	31.1	30.8	53		53	
Difference 1/...	+2.2		-2.5		-0.3		0			
1968										
October.....	14.3	17.8	19.3	17.4	33.6	35.2	51		48	
November.....	14.9	18.5	20.3	16.8	35.2	35.3	47		47	
December.....	16.5	18.6	19.4	14.9	35.9	33.5	46		50	
1969										
January.....	15.8	17.9	18.0	15.0	33.8	32.9	50		52	
February.....	14.3	16.5	18.4	16.1	32.7	32.6	52		52	
March.....	14.5	16.5	18.1	16.0	32.6	32.5	52		53	
April.....	14.7	17.2	17.6	16.0	32.3	33.2	52		52	
May.....	13.0	15.5	19.3	15.1	32.3	30.6	53		57	
June.....	11.8	15.0	16.8	15.2	28.6	30.2	61		60	
July.....	12.1	14.1	17.5	16.2	29.6	30.3	60		60	
August.....	12.7	15.3	15.3	15.1	28.0	30.4	63		61	
September.....	14.5	16.5	17.4	15.3	31.9	31.8	59		59	

1/ The difference is the change from the old to the revised.



rise of 3 cents in the wholesale price, however, increased the farm-wholesale spread and decreased the wholesale-retail spread. The total farm-retail spread decreased slightly (0.3 cent). Both the old and the revised average farmer's share for the 5-year period round to 53 percent.

Revision did not change the farmer's share of the retail pork price appreciably because some of the changes tended to be offsetting. Changes in byproduct value calculations and inclusion of retail shrink tended to raise the farmer's share; a change in the conversion factor due to the improvement in hog quality and changes in the farm and retail price estimating procedures tended to lower the farmer's share.

The increase in the wholesale value of pork came from a transportation differential added to the Chicago wholesale price to make it representative of the United States, an allowance for retail shrink, and a revision in the carcass-to-retail cutout percentage. The previous procedure assumed no cutout loss and did not adjust Chicago prices.

Differences between the old and revised estimates for a particular month (for both beef and pork) sometimes vary a cent or two from the average difference. Part of this, especially when prices are changing rapidly, results from using a monthly average rather than a short period early in the month.

#### REVISED PROCEDURES FOR COMPUTING PRICE SPREADS

Since price spreads are the difference between prices or values at 2 market levels, the basic task in computing price spreads is estimating these prices and values at each market level--retail, wholesale, and farm. Because of extensive revisions, changes in the procedures are outlined in the remainder of this article. Changes are discussed under headings for the three market levels. Changes that affect more than one level are discussed in detail under the first level to which they are applicable.

Certain principles are involved in accurately estimating prices and values,

and changes were made to more nearly attain these principles.

Composite retail prices should include:

1. A geographically representative sample of prices of all retail cuts for the time period involved.
2. An accurate procedure for weighting these prices to reflect the volume sold at regular and special prices to obtain the composite price.

Composite wholesale values should include:

1. Prices of carcasses that are of comparable quality to the cuts priced at retail.
2. Prices representative of the areas where the meat is consumed for the time period involved.
3. Correct weighting of these prices by volume of movement in relation to area where consumed, terms of sale, and volume discounts.
4. Conversion of the carcass price to the wholesale value of the equivalent of 1 pound sold at retail.

Net farm values should include:

1. Prices of live animals of comparable quality to cuts priced at retail.
2. Prices representative of production areas for the time period involved.
3. Deduction of costs to the producer for transportation and other selling expenses.
4. Weighting of net returns to producers by volume of movement by area.
5. Conversion of live animal prices to the farm value of the equivalent of 1 pound sold at retail.
6. Adjustment of the farm value to allow for the value of byproducts.

## Retail Price

### Data Collection Period

Estimates are made for each month and thus an average price for the month is required to reflect the time period. Retail price procedures in the old method used only Bureau of Labor Statistics (BLS) prices collected on the first Tuesday, Wednesday, and Thursday of the month. For consistency, data used for the farm and wholesale levels also were for the first week of each month. The new procedure uses average prices for the entire month at all levels. Monthly data are readily available at the farm and wholesale levels. To obtain average retail prices for the month, meat prices reported each week to the Marketing Economics Division (MED) by retail food chains are utilized along with BLS prices. MED presently receives weekly prices from 40 retail chain divisions throughout the United States. Regular and special prices are obtained weekly from each chain division. Beef prices used are for Choice grade.

In revising retail prices over the historical period, the retail price could not be converted to a monthly basis before 1962, since the MED survey was not conducted in its present form before that time. The series before 1962 were constructed using data for the BLS pricing week with the exception of the farm price of beef. Price series used for live cattle were only available on a monthly basis.

### BLS Price Adjustment

To use BLS prices of individual cuts in the revised procedure, prices of each cut must be converted into a monthly average regular and specials-included price. The regular price represents an average of all regular prices for the cut assuming no specials. The specials-included price represents an average of special prices for stores where the cut is on special and regular prices for those stores where the cut is not on special. The BLS prices are adjusted by using the MED retail survey data for each cut. The difference between the regular and specials-included price for the cut is determined from the retail price

survey for the week BLS prices are collected. One-third of this difference is subtracted from the BLS published price to obtain the specials-included price and two-thirds of the difference is added to obtain the regular price of the cut. These adjustments are based on data provided by BLS indicating that BLS prices reflect about two-thirds of the specials. These two prices are then adjusted to a monthly average by using the difference in the MED retail survey prices for the week BLS prices are collected and the average for the month.

### Prices and Specials

From the weekly chainstore prices, MED computes average monthly prices for 29 beef cuts and 20 pork cuts. Adjusted BLS prices are used in place of MED retail survey prices, however, for those cuts for which BLS prices are available. In the past, only the cuts priced by BLS were used in estimating the composite retail prices of beef and pork. This assumed that prices of cuts not priced by BLS varied proportionately with cuts priced by BLS. The revised procedure uses prices of all retail cuts to obtain composites--prices for all cuts combined.

As both regular and specials-included prices for all cuts are available, a basis is provided for computing the total effect of specials on the composite price. Two composite prices are computed; one composite of all regular prices, the second of specials-included prices. The differences between the regular composite and specials-included composite is the price effect of specials--i.e., the change in the average price of beef or pork due to specials without an allowance for changes in the relative quantities of the cuts sold due to the specials.

The change in the volume of movement when an item is on special also has to be taken into account to obtain the total effect of specials. Since it is not practical to collect volume of movement data every month to compute a weighted average composite price, a special study was conducted with 20 retail chain divisions in 5 cities over a period of 6 months. This



study determined the relationship of the volume effect to the price effect. From the data collected, a regular composite, a specials-included composite, and a volume-weighted composite price were computed. The difference between specials-included and volume-weighted composite prices is the volume effect of specials--i.e., the change in the average price of beef or pork sold due to the changes in the proportions of cuts sold when some are specialized. The data indicated that the volume effect is 0.65 times as large as the price effect for beef. Similarly, the volume effect is 0.52 times as large as the price effect for pork. <sup>2/</sup>

In the revised procedures, the total effect of specials is estimated by first computing the regular and specials-included composite prices using the MED retail survey and BLS data. Subtraction of the specials-included composite from the regular composite provides the price effect. The price effect for beef is then multiplied by 0.65 and the price effect of pork by 0.52 to obtain the volume-effects. The price and volume effects are then added together and subtracted from the regular composite price to obtain the weighted composite U.S. retail price.

Procedures used in computing retail prices for the historical period were identical to the revised procedures going back through 1964. In 1962 and 1963, only 5 instead of 7 beef cuts and 4 instead of 6 pork cuts were priced by BLS. Prices for the two missing cuts were estimated by applying the difference between the adjusted BLS price and the retail survey price in 1964 and 1965 to the 1962 and 1963 retail-survey prices. Retail survey data were not available prior to 1962. The revised series prior to 1962 was estimated using the relationship between the previous and revised retail prices in 1962.

#### Wholesale Value

Monthly average prices are used in the revised procedure to adequately re-

flect the time period involved. The procedures for determining the wholesale prices and values for beef and pork vary. Pork carcasses are usually broken down and in many cases smoked or cured before being placed on the wholesale market. Beef is usually sold in carcass form.

#### Beef Prices

Trends in wholesale prices for beef are often different between the West Coast and other U.S. markets. Therefore, these areas are used as separate markets in the revised procedures. The U.S. composite wholesale price is obtained by weighting the West Coast price by 13.4 percent and the rest of the United States by 86.6 percent. These weights are the relative beef consumption levels of the 2 areas based on the 1965 Household Food Consumption Survey data and population data.

Chicago carlot prices of 600-700 pound Choice steer carcasses are used to represent all U.S. markets, except the West Coast, as beef is normally sold on a plus or minus Chicago price basis. This was substantiated by comparing transportation rates and price differences between several markets. Carlot prices, as opposed to less-than-carlot prices, are used since more than 80 percent of the beef is sold by carlot. The Chicago price is adjusted to represent the entire area by adding a transportation differential of 75 cents per hundred-weight. This differential was determined by comparing price differences between Chicago and other markets and weighting the price differentials by consumption in each State in the area.

The wholesale price for the West Coast market is computed from an average of carlot and less-than-carlot prices of 600-700 pound Choice steer carcasses at Los Angeles, San Francisco, and Seattle-Portland. This allows for price differences in the area and also the relative movement by carlot and less-than-carlot sales.

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<sup>2/</sup> For greater detail, see Duewer, Lawrence A., "Effects of Specials on Composite Meat Prices," Agricultural Economics Research, Vol. 21, No. 3, July 1969.

Carlot prices were not available for the West Coast markets before 1964 and for Chicago before 1960 to compute the historical series. A gradual change was made to less-than-carlot data.

### Pork Prices

The composite wholesale price of pork is computed by weighting the prices of various pork cuts, as in the past. However, pigs feet, ears, and tails are now included as minor products, rather than being classed as byproducts. Weights of the individual cuts were also changed to reflect the improvement in hog quality. Prices used for all cuts are Chicago carlot prices. Since pork production is small on the West Coast, prices used throughout the United States are plus or minus prices published in the National Provisioner. A transportation differential of 88 cents per hundredweight is added to the weighted wholesale price to make it representative of the United States. Transportation rates, 1965 Household Food Consumption Survey data, and population data were used to obtain the 88 cent differential.

Wholesale values for the historical period were computed using the revised procedure. Less-than-carlot prices were substituted when carlot prices were not available in earlier years.

### Wholesale and Farm Product Equivalents

To obtain meaningful spread estimates, values must be determined for the quantities of farm product (live animal) and wholesale product (carcass beef or wholesale pork cuts) that are equivalent to 1 pound of retail product sold. Changes in these quantities or conversion factors resulted from the inclusion of retail shrink and changes in dressing percentages and cutting tests. Conversion factors for beef and pork differ.

Retail shrink is the difference between the potential retail value of meat at the time it is cut and packaged and the actual value received for the meat by the store. Included in retail shrink are losses in value resulting from spoilage,

pilferage, refacing, conversion to lower valued uses, and extra weight placed in the package to allow for dehydration. Allowance was not made for these losses in the past. A retail shrink loss of 5 percent for beef and 5.5 percent for pork is allowed in the revised procedure. The loss itself occurs at the retail level but does not affect the computation of the composite retail price, since retailers price meat allowing for this loss. More pounds of carcass and live animal are needed to produce the 1 pound of meat priced at retail. Thus, the allowance for retail shrink is reflected in the farm and wholesale conversion factors.

Beef: In the past, a conversion factor of 1.35 was used to compute the wholesale value of beef equivalent to 1 pound sold at retail. The conversion factor of 2.25 was used to compute the farm value. The wholesale conversion factor (1.35) was based on a 74 percent carcass-to-retail cutout estimate. The farm conversion factor (2.25) combined this cutout percentage with an estimated live-to-carcass dressing percentage of 60.

Conversion factors for beef in the revised procedure are 1.41 at the wholesale level and 2.28 at the farm level. These new conversion factors reflect the allowance for retail shrink by raising the conversion factors, since more product is required at the wholesale and farm levels to obtain a pound of meat at retail. However, a revision of cutout and dressing percentages tended to lower the conversion factors. The revised carcass-to-retail cutout is 74.6 percent and the live-to-carcass dressing percentage is 62 percent. These new values are the result of using only prices of Choice steers, rather than prices of both steers and heifers. Steers yield more beef per 100 pounds of live animal and 100 pounds of carcass and sell for higher farm and wholesale prices than heifers. As these factors tend to balance out, data for steers only are used to facilitate computations. At the retail level there is no differentiation between heifer and steer beef.

In the revision of beef data for the historical period, conversion factors were changed gradually between 1951 and 1962 to reflect changes that occurred in carcass-to-retail cutout during this period. Retailers trimmed more fat each year and boned more cuts. The farm conversion factor was increased gradually from 2.12 prior to 1952 to 2.28 in 1962 and later. Correspondingly, the wholesale conversion factor was changed from 1.32 to 1.41.

Pork: It was assumed previously that no loss occurred between wholesale and retail for pork. Therefore, the wholesale conversion factor was 1.00. The farm conversion factor was 2.00; based on an estimated yield of 50 pounds of retail cuts from 100 pounds of live hog.

In the revised procedure, conversion factors of 1.07 at the wholesale level and 1.97 at the farm level are used. The retail shrink allowance of 5.5 percent raised the conversion factors; but other changes were made as a result of the improvement in hog quality over the years that reduced the conversion factor at the farm level. Consumers prefer leaner pork and producers have gradually responded by producing a leaner hog that yields more meat and less lard. The revised farm conversion factor is based on an estimated yield of 54.3 pounds of major and minor cuts per 100 pounds live hog. A carcass-to-retail cutout yield of 98.7 percent is also included. The new carcass-to-retail yield, combined with the allowance for retail shrink, changed the conversion factor at wholesale to 1.07.

In revising the pork historical series, the wholesale conversion factor remained 1.07, but the farm conversion factor was changed gradually to allow for the improvement in hog quality. Starting in the first half of 1949 with the yield of 50.3 pounds of pork per 100 pounds of live hog as a base, 0.1 pound of pork was added and 0.1 pound of lard subtracted each 6 months to reflect a leaner hog. The farm conversion factor decreased from 2.13 in 1949 to 1.97 in 1969.

### Farm Value

Changes in procedures for estimating the farm value not yet discussed include the determination of the net price the farmer receives and the change in use of byproducts. In the past, computations of the farm value for both beef and pork were based on the "Prices Received by Farmers" series published by the Statistical Reporting Service (SRS). Adjustments had to be made in the SRS price series to estimate prices of the same quality of product used at the wholesale and retail levels.

### Beef Farm Values

Live cattle prices are now based on prices at 7 Midwestern markets and a composite California price. Marketing costs of the producer are subtracted to arrive at a "farm-gate" value. These prices are specifically for Choice steers. The 7 markets are Chicago, Omaha, Sioux City, Kansas City, National Stockyards, South St. Joseph and Sioux Falls. The California price is published in the Market News and represents an average of California quotations. The weighted 7-market price is reduced by 60 cents per hundredweight to cover farmer marketing costs. These costs were obtained from data provided by the livestock exchanges at the markets involved. A value of 50 cents per hundredweight is subtracted from the California price to reflect farmer marketing costs. A weight of 15 percent is given to the West Coast price and 85 percent to the 7-market price in computing the U.S. average price. These weights are based on relative production levels. The gross farm value is obtained by multiplying the weighted average U.S. price of Choice steers by the revised farm conversion factor of 2.28.

The hide and offal value published in Market News is now used as the basis for computing beef byproduct values. Changes in byproduct use had resulted in an overstatement of the byproduct value.



In obtaining the ratio of byproducts to the total value of products obtained from the animal, carlot rather than less-than-carlot carcass prices for Chicago are now used. The gross farm value is multiplied by the byproduct ratio to get the byproduct allowance, that is, the portion of the gross farm value attributed to the byproducts. Subtraction of the byproduct allowance from the gross farm value provides the net farm value.

Computations of the historical farm values for beef were made with data for only 6 of 7 markets for 1955 through 1958 and 3 markets prior to 1955. Prior to November 1965, an average of the Stockton and El Centro markets was used to estimate the California price. Prior to September 1956, when El Centro data were not available, an adjusted Stockton price was used alone. Due to the change in cattle grades and unavailability of data, the price was estimated before 1952 by multiplying the old price series by 105.25. This was the average relationship between the previous and revised prices during the 1952-57 period. The hide and offal value now used as a base in the calculation of the byproduct value was not reported until July 1966. A gradual adjustment over a 9-year period was made back to the old hide and offal value.

### Pork Farm Values

Average monthly prices of barrows and gilts at 8 primary markets are used in the revised procedure for computing the farm price of pork. Although not dispersed throughout the United States, these markets are located in the major areas of hog production. A farmer marketing cost of 78 cents per hundredweight is subtracted to arrive at a farm-gate value. This charge includes 29 cents for transportation and 49 cents for yardage, commission, and other marketing costs. Data for marketing costs were obtained from the livestock exchanges. The gross farm value is obtained by multiplying the farm price by the conversion factor of 1.97 discussed earlier.

Byproduct items and weights for pork have been changed to reflect the present yield of lard which has decreased significantly. The byproduct value is subtracted from the gross farm value to obtain the net farm value. The value of byproducts was greater during earlier years of the historical period mainly due to the higher yield of lard.





